

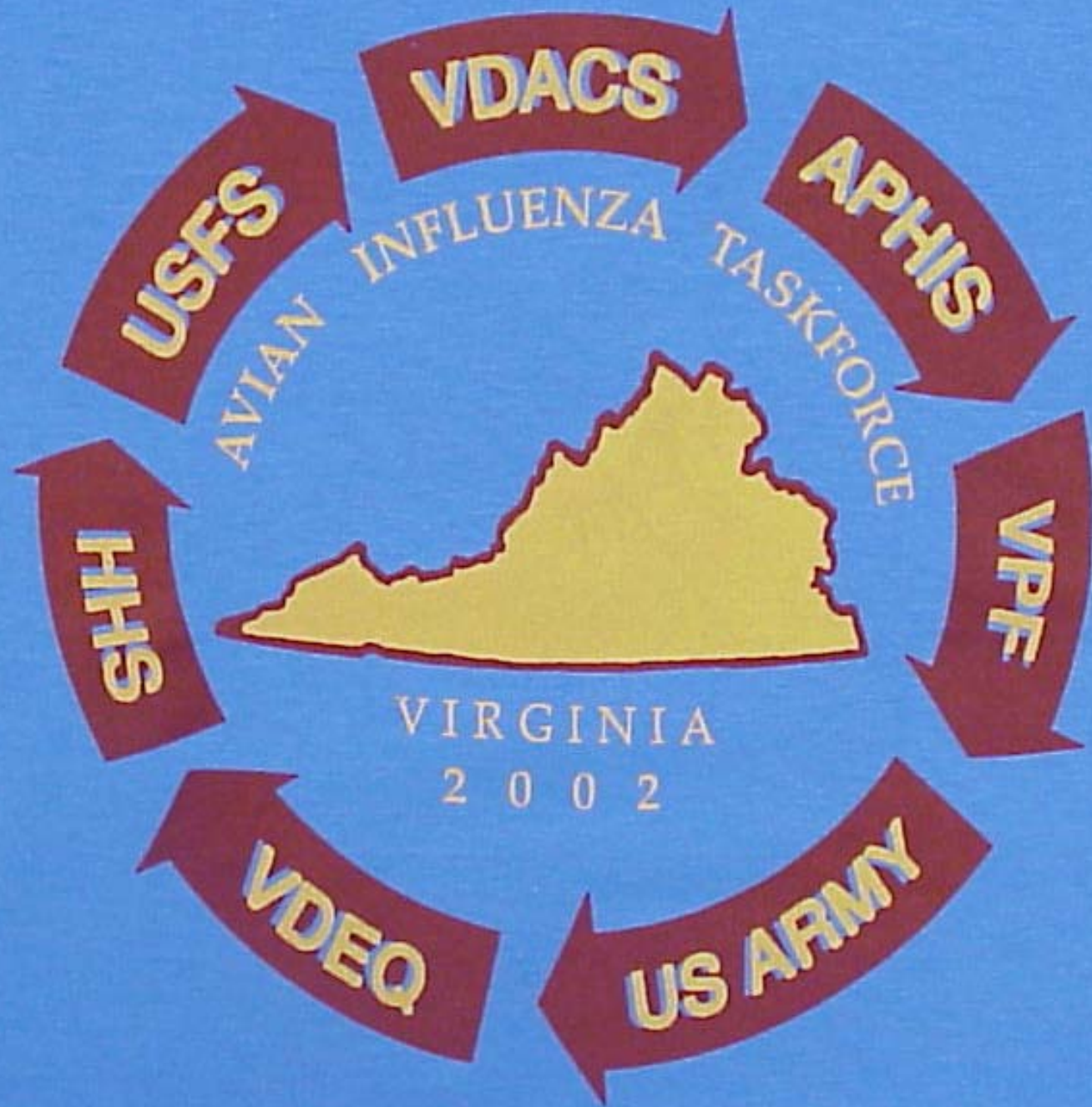
# **2002 Low-Path H7N2 Outbreak in Virginia**

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**Assistant State Veterinarian**

**Chief, Office of Laboratory Services  
Virginia Dept. Agriculture and Consumer  
Services**





# Avian Influenza

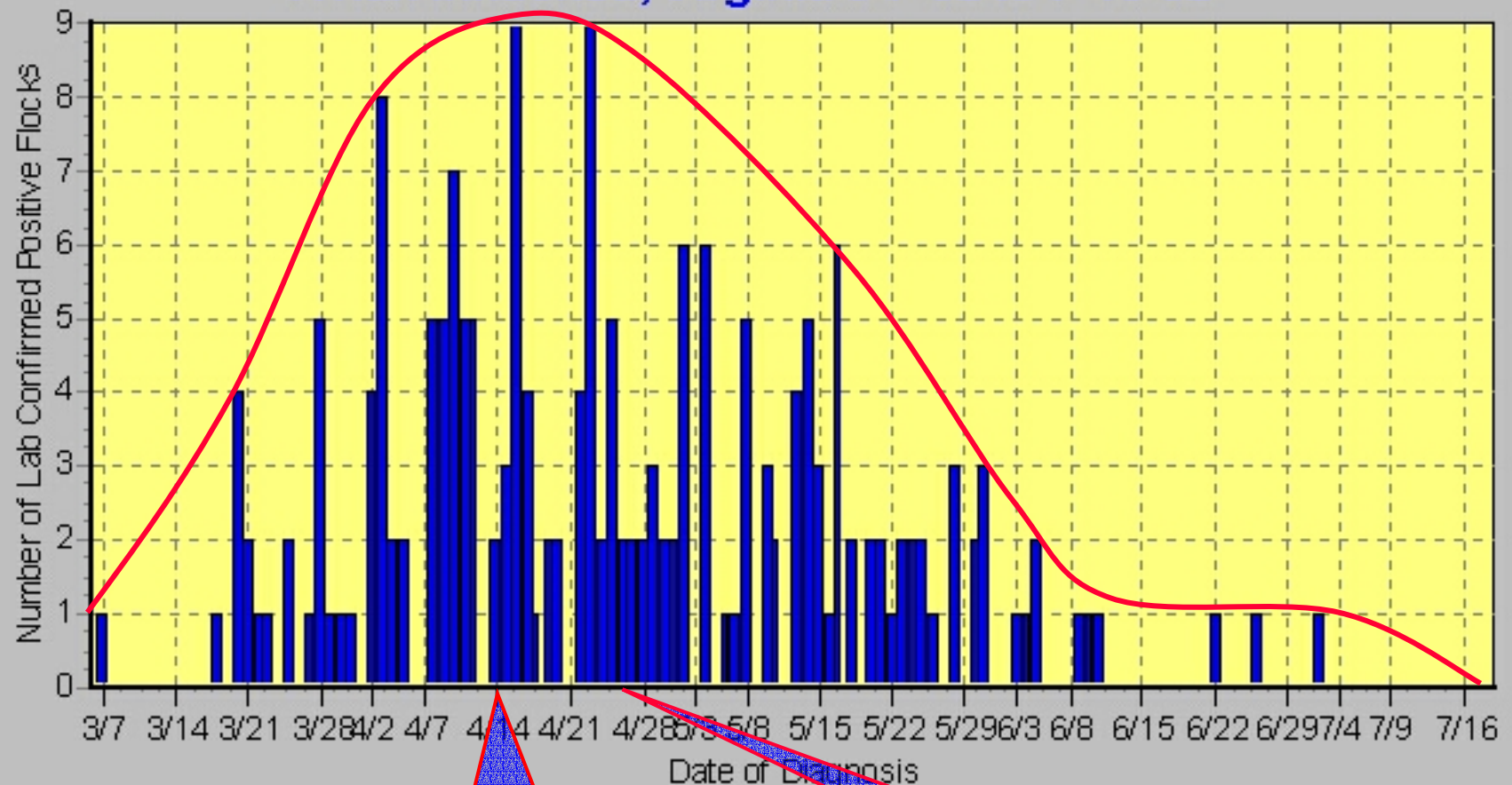
- Incubation Period 3-14 days
- Highly contagious (100%)
- Respiratory symptoms, egg drop
- **Low-Path** - low mortality, recover in 3 weeks
- **High-Path** - >95% mortality within 24 hours
  - **H5** and **H7** types

# Why Control Low-Path H5/H7 AI?

- Significant carcass condemnations
- Significant egg production losses
- Inter-state and international trade embargoes
- Historically (Virginia/Pennsylvania, Mexico, Italy), if left to circulate, **H5 and H7 always mutate** into **High-Path** eventually (8-12 months)



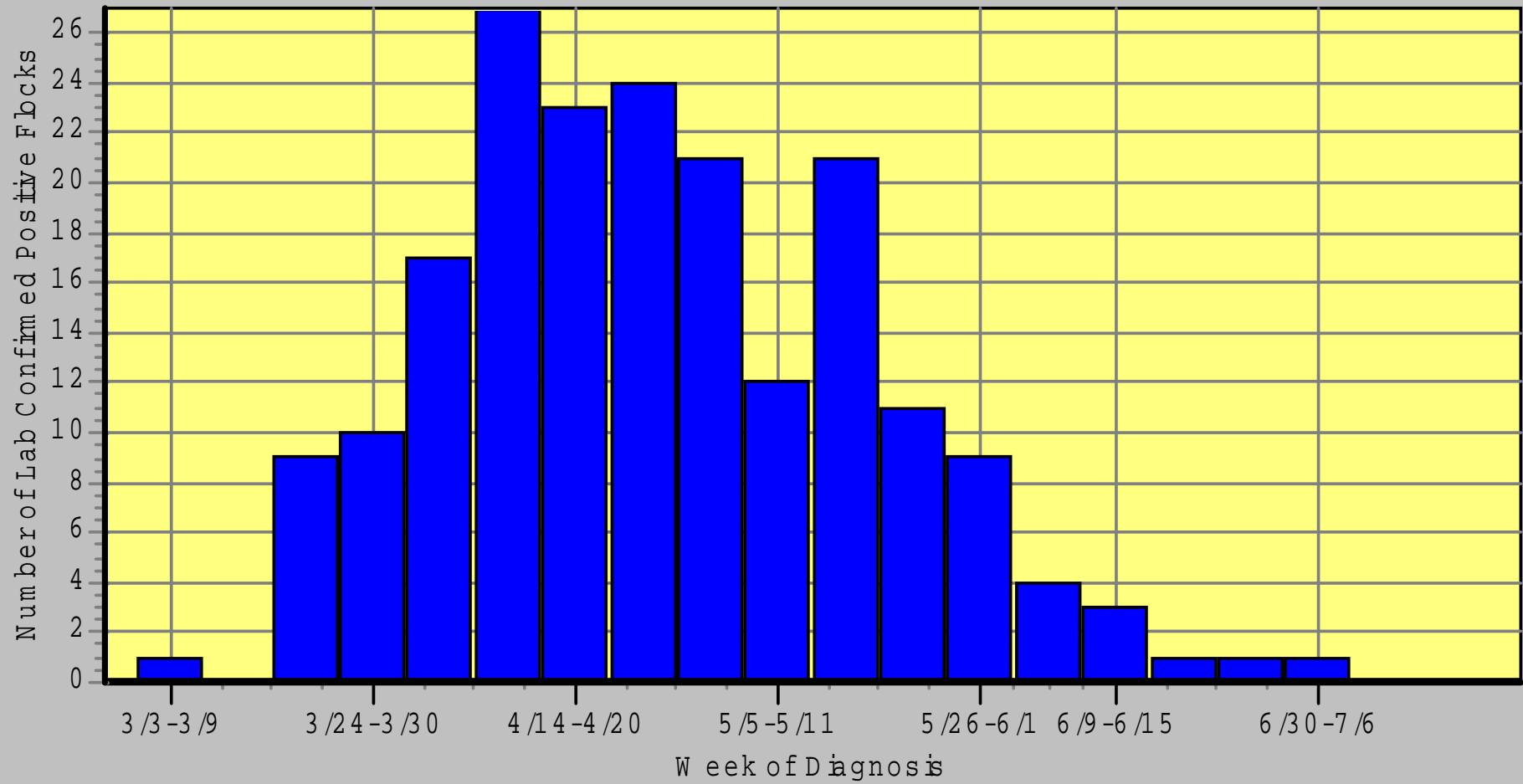
## Daily Epidemic Curve Avian Influenza, Virginia 3-7-02 to 7-18-02



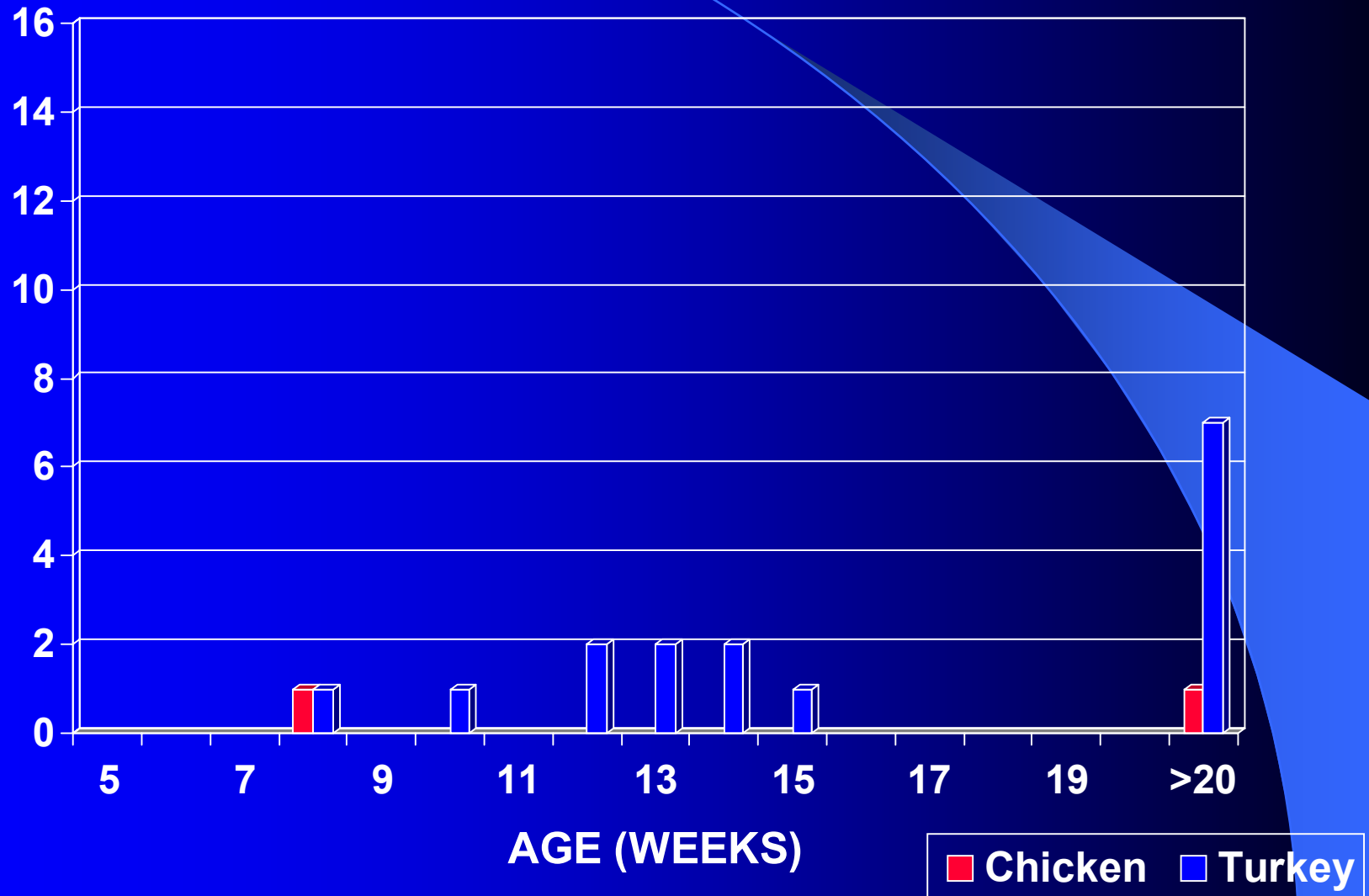
AI Taskforce  
activated

"Barrel"  
Surveillance

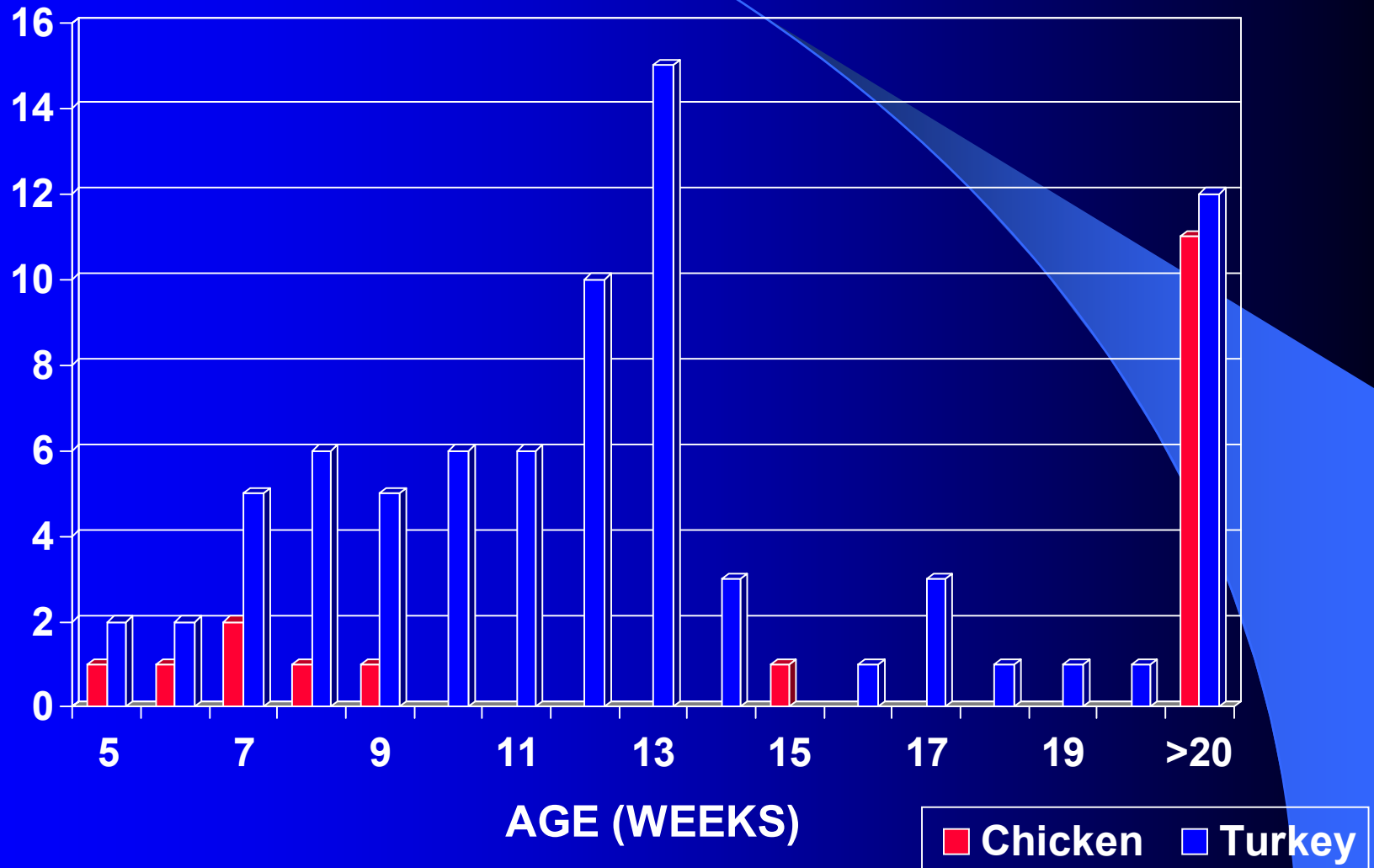
Weekly Epidemic Curve  
Avian Influenza, Virginia 3-3-02 to 7-15-02



# AI Positive Poultry Flocks – March 2002

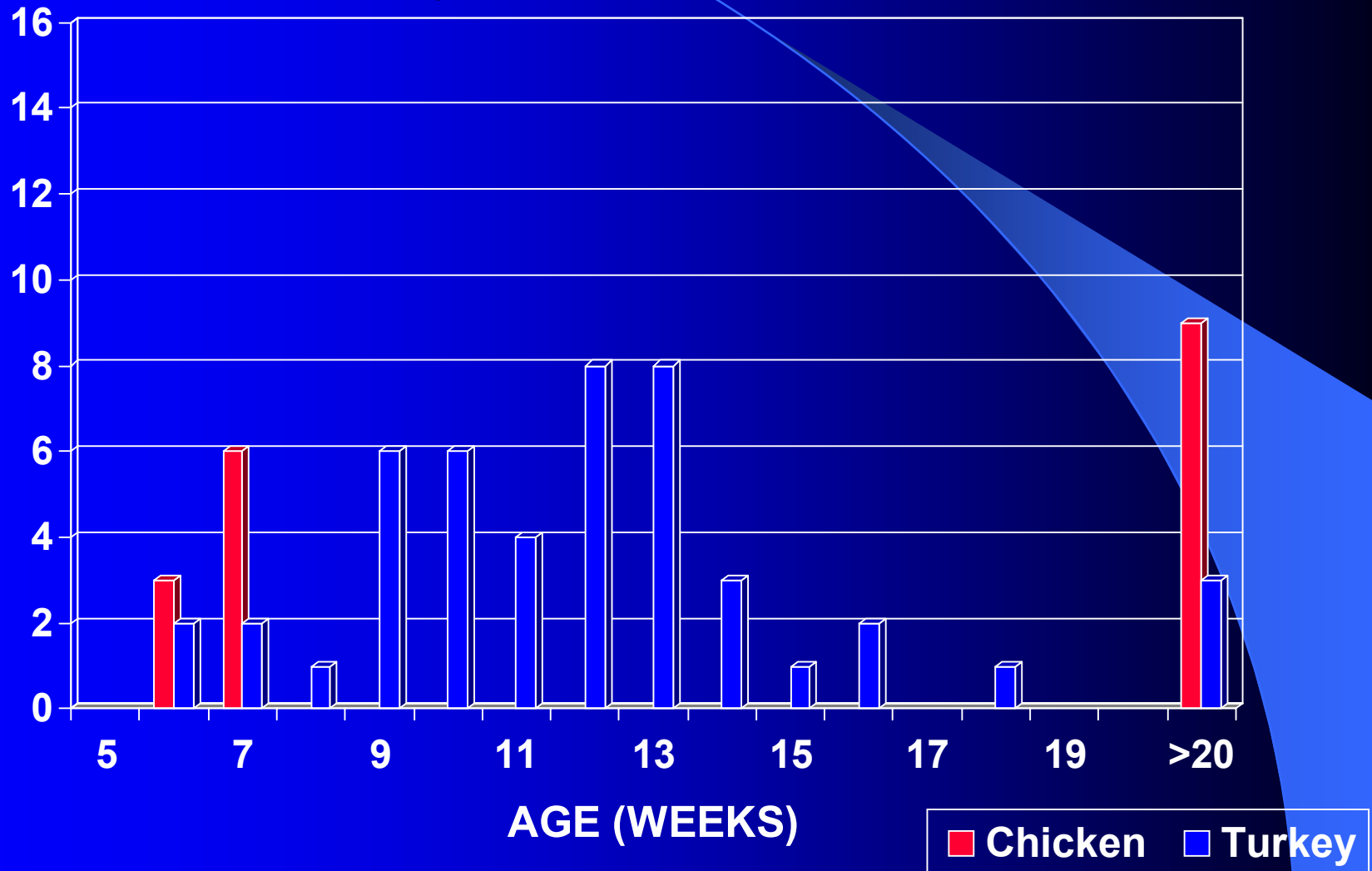


# AI Positive Poultry Flocks – April 2002

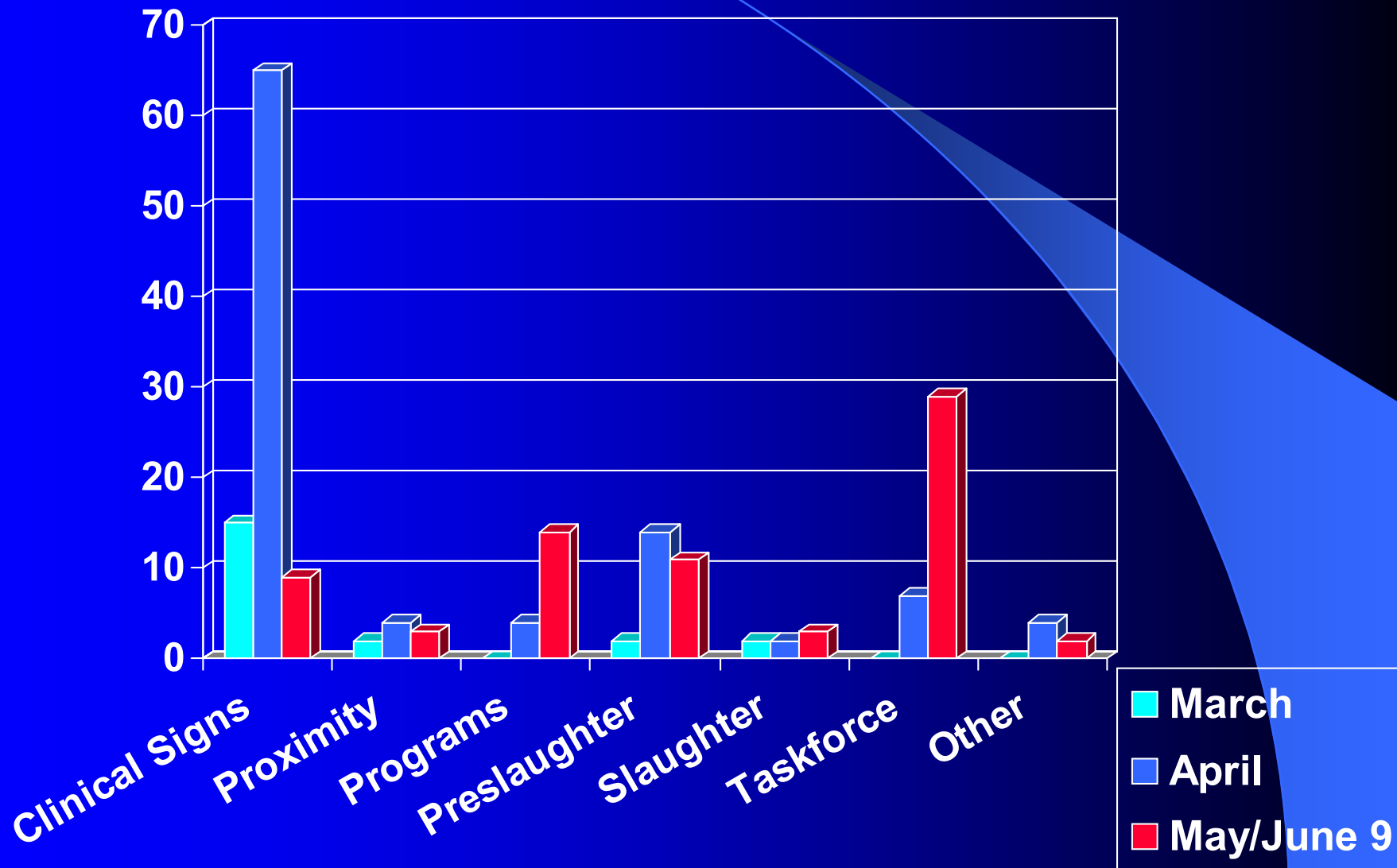




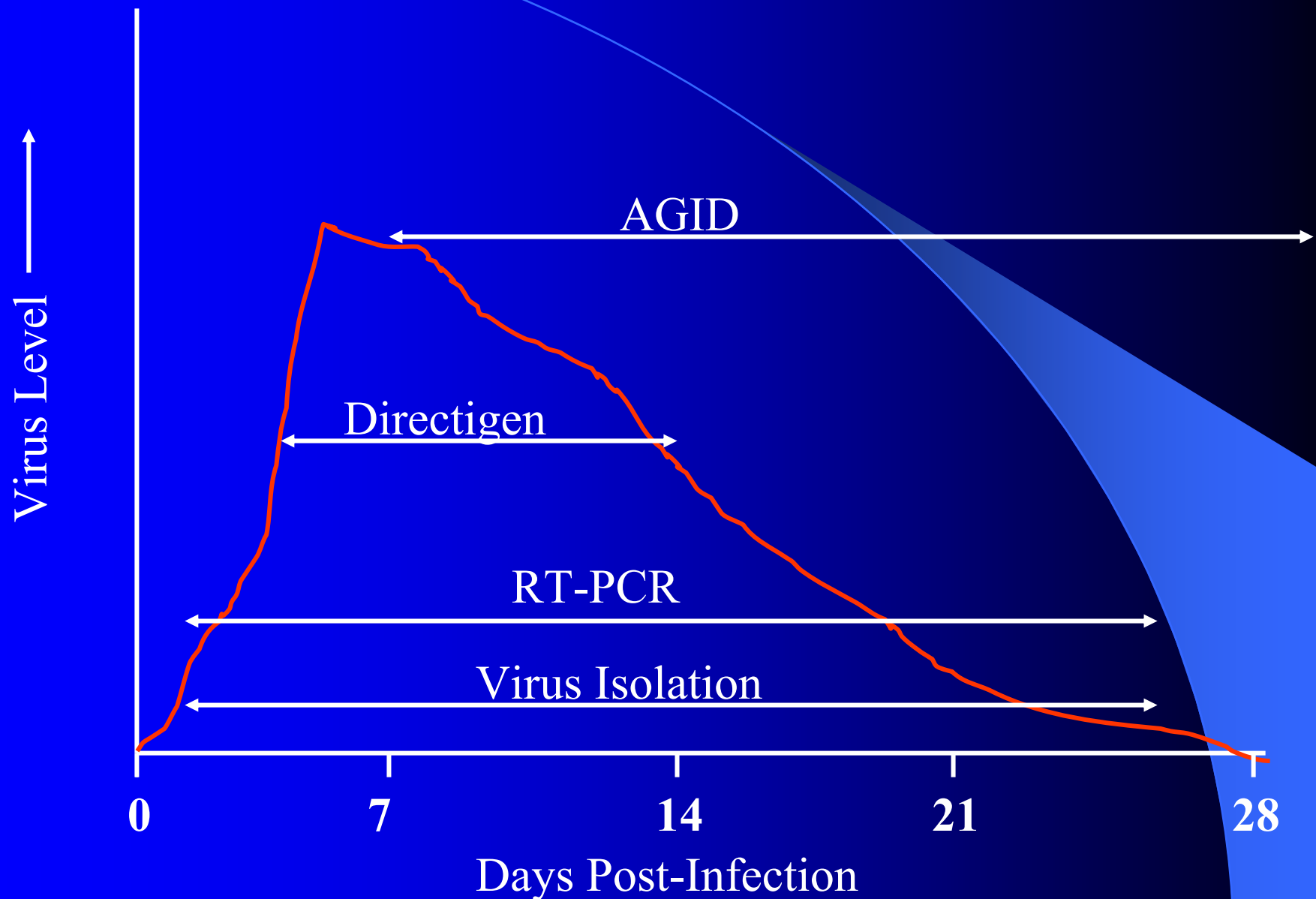
# AI Positive Poultry Flocks – May/June 9, 2002



# AI Positive Poultry Flocks – Testing Reason



# Avian Influenza Tests



# AI Surveillance

## Pre- Outbreak

Breeders or  
Layers

NPIP required  
Ab testing  
Ab At Slaughter

Breeder  
Replacements

NPIP required  
Ab testing

Turkey  
Growout

Ab At Slaughter

Broilers

None

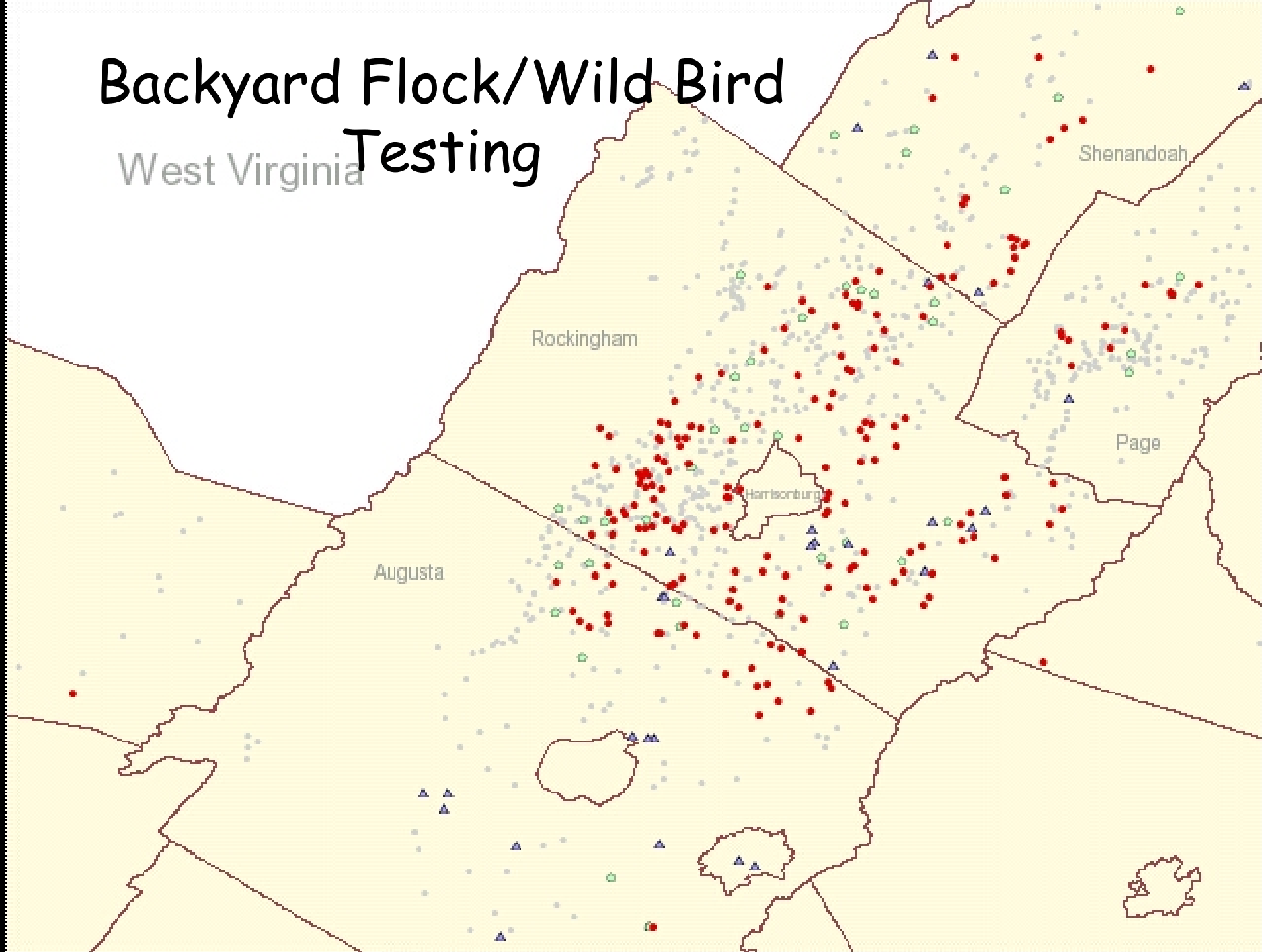
# AI Surveillance

	Pre- Outbreak	During Outbreak
Breeders or Layers	NPIP required Ab testing Ab At Slaughter	Weekly Ag Bi-weekly Ab Pre-Slaughter Ag/Ab
Breeder Replacements	NPIP required Ab testing	Weekly Ag Pre-movement Ag/Ab
Turkey Growout	Ab At Slaughter	Weekly Ag Pre-Slaughter Ag/Ab
Broilers	None	Weekly Ag Pre-Slaughter Ag



# Backyard Flock/Wild Bird Testing

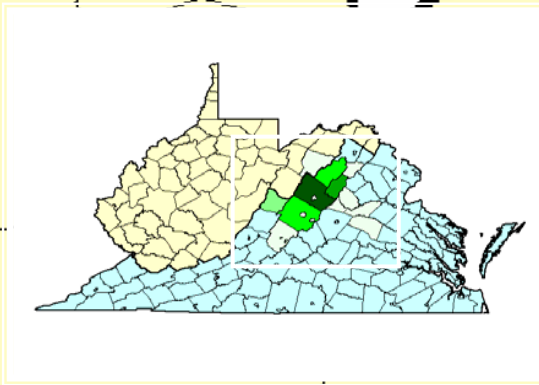
West Virginia



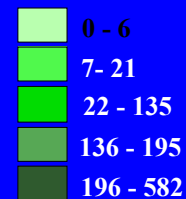


# AI Surveillance

	Pre- Outbreak	During Outbreak	Post- Outbreak
Breeders or Layers	NPIP required Ab testing Ab At Slaughter	Weekly Ag Bi-weekly Ab Pre-Slaughter Ag/Ab	Ab every 4-6 weeks Pre-Slaughter Ag/Ab
Breeder Replacements	NPIP required Ab testing	Weekly Ag Pre-movement Ag/Ab	Monthly Ab Pre-movement Ag/Ab
Turkey Growout	Ab At Slaughter	Weekly Ag Pre-Slaughter Ag/Ab	Pre-Slaughter Ag/Ab
Broilers	None	Weekly Ag Pre-Slaughter Ag	Ab/Ag At Slaughter



**Total No. Flocks**



**Shenandoah**

$\frac{21}{87}$

**Page**

$\frac{12}{186}$

**Rockingham**

$\frac{136}{561}$

**Highland**

$\frac{1}{17}$

**Augusta**

$\frac{26}{126}$

**Greene**

$\frac{1}{3}$

**Infected Flocks vs Total Flocks  
in Virginia - *as of 8/22/02***

Infected flocks in Incorporated Harrisonburg are included under Rockingham County

# Lessons Learned?

- ✓ This H7N2 virus probably did not come from local backyard flocks or from wild birds.
- ✓ The molecular fingerprint of this H7N2 is virtually identical to the virus that has been circulating in the Live-bird Markets in NY/NJ for the last 8 years. The virus keeps getting re-introduced into those markets by suppliers.
- ✓ The industry must maintain biosecurity “walls” between commercial flocks and these live-bird markets and their suppliers.

# Lessons Learned?

- ✓ Transport of dead birds (daily mortality) off of the farm to rendering for disposal is a high risk activity.
- ✓ Spread of the virus is primarily by movement of people and equipment, windborne spread is a very minor component.
- ✓ "The best laid plans...." every outbreak is unique and will require flexibility and creative decision making to solve the many problems that arise.
- ✓ Environmental concerns will figure prominently in management of an outbreak.

# Lessons Learned?

- ✓ Multiple state and federal agencies can work effectively with the industry and producers to quickly stamp out an outbreak.
- ✓ Trade considerations, "the big picture", will dictate local decisions.
  - Stamping-out policy
  - Vaccination policy
  - Disposal options
- ✓ Indemnity is needed for all stamping-out programs, regardless of pathogenicity of virus.